



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name: James Madison University
Facility Name: James Madison University
Facility Location: James Madison University Campus,
Harrisonburg
Registration Number: 80117
Permit Number: VRO80117

<u>Permit Number</u>	<u>Effective Date</u>	<u>Expiration Date</u>
VRO80117	June 1, 2019	May 31, 2024

Significant Modification Date: May 22, 2020

A handwritten signature in blue ink, appearing to read "B. K. J. Hill", written over a horizontal line.

Deputy Regional Director

May 22, 2020

Signature Date

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Facility Information

Permittee

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Responsible Official

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Associate Vice-President of Business Services

Facility

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Harrisonburg, Virginia 22801

Contact Person

Dennis Hart
Manager, Power Plant
540-568-6235

County-Plant Identification Number: 51-660-0005

Facility Description:

SIC Code: 8200 – Educational Institutions

NAICS Code: 611310 – Colleges, Universities and Professional Schools

James Madison University (JMU) is a publicly funded institute for higher education located in Harrisonburg, Virginia. JMU's campus facilities include classrooms, dormitories, laboratories, athletic complexes, research facilities, and various support facilities. Significant emissions sources at JMU consist of two Central Power Plants (Central Power Plant and Central Power Plant - East), emergency generators, and other fuel burning units.

The facility is subject to the following federal requirements:

MACT:

40 CFR 63, Subpart ZZZZ (NESHAP for Stationary Reciprocating Internal Combustion Engines)

40 CFR 63, Subpart DDDDD (NESHAP for Industrial/Commercial/Institutional Boilers and Process Heaters)

40 CFR 63, Subpart JJJJJ (NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources)

NSPS:

40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units)

40 CFR 60, Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines)

40 CFR 60, Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines)

Central Power Plant

The Central Power Plant currently consists of a total of three boilers to produce steam for heat and related university operations.

- Two English natural gas and distillate oil-fired boilers, each with a maximum rated heat input capacity of 97.1 MMBtu/hr when burning natural gas and 92.6 MMBtu/hr when burning distillate oil, B-5 biodiesel and B-20 biodiesel (Boilers B1 and B2).
- English distillate oil, B-5 biodiesel, B-20 biodiesel, and natural gas-fired boiler with a maximum rated heat input capacity of 50 MMBtu/hr (Boiler B5)

Central Power Plant - East

JMU has two dual-fueled boilers, B3 and B4, capable of firing natural gas and distillate oil, each rated at 43.2 MMBtu/hr for each fuel.

Other Fuel Burning Equipment

Due to the extensive nature of the JMU academic campus, it is not feasible for the Central Power Plant and the Central Power Plant - East to provide heat and steam to all of the contiguous buildings. Therefore, some facilities maintain separate hot water heaters and small package boilers for the purposes of providing building heat and hot water. These smaller units burn distillate oil, natural gas, or liquefied petroleum gas (LPG). These units are newly listed under Insignificant Emission Units because of the discontinuation of underlying permit requirements.

Emergency Generators

JMU maintains emergency electrical generators across campus. The generators are fueled with diesel fuel (distillate oil), natural gas, or LPG. The generators range in size up to approximately 750 kilowatts (kW). They are governed by the NSPS Subpart IIII, the NSPS Subpart JJJJ, and the MACT RICE, Subpart ZZZZ.

Emission Units

Equipment to be operated consists of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Central Power Plants							
B1	S-1	Water Tube boiler, natural gas-fired, English (2011)	97.1 MMBtu/hr	Flue-gas recirculation (FGR) system, Low NO _x Burner	B1_PCD	NO _x	03/29/18
		Water Tube boiler, distillate oil, B-5 and B-20 biodiesel-fired English (2011)	92.6 MMBtu/hr				
B2	S-1	Water Tube boiler, natural gas-fired, English (2011)	97.1 MMBtu/hr	Flue-gas recirculation (FGR) system, Low NO _x Burner	B2_PCD	NO _x	03/29/18
		Water Tube boiler, distillate oil, B-5 and B-20 biodiesel-fired, English (2011)	92.6 MMBtu/hr				
B3	ST-3	English Boiler, natural gas-fired (Constructed (C): 1996-97)	43.2 MMBtu/hr	Flue-gas recirculation (FGR) system, Low NO _x Burner	#3LNB	NO _x	03/29/18
		English Boiler, distillate oil-fired (C: 1996-1997)					
B4	ST-4	English Boiler, natural gas-fired (C: 1996-1997)	43.2 MMBtu/hr	Flue-gas recirculation (FGR)	#4LNB	NO _x	03/29/18

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
		English Boiler, distillate oil-fired (C: 1996-1997)		system, Low NO _x Burner			
B5	S-1	English Boiler, natural gas, distillate oil, B-5 and B-20 biodiesel-fired (1991)	50 MMBtu/hr	Flue-gas recirculation (FGR) system, Low NO _x Burner	B5_PCD	NO _x	03/29/18
Emergency (Electrical) Generators							
<u>EG1: Distillate Oil-fired Units</u>							
EG1-2A	EG1-2A-1	Caterpillar	200 kW	--	-	--	--
EG1-1	EG1-1-1	Kohler GENSET 2ROZJ	20 kW	--	-	--	--
EG1-A01	EG1-A01-1	GENERAC GENSET 3420810100	50kW	--	-	--	--
EG1-151	EG1-151-1	KOHLER GENSET 40REOZJB	40 kW	--	-	--	--
EG1-241	EG1-241-1	Cummins Generator DFEG	350 kW	--	-	--	--
EG1-A02	EG1-A02-1	Caterpillar 291-0361	125 kW	--	-	--	--

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EG1-11	EG1-11-1	ONAN GENSET 125DGEA	125 kW	--	-	--	--
EG1-19	EG1-19-1	OLYMPIAN GENSET D200P4	200 kW	--	-	--	--
EG1-A03	EG1-A03-1	KOHLER GENSET 275RE0ZJ	275 kW	--	-	--	--
EG1-A33	EG1-A33-1	Caterpillar	550 kW	--	-	--	--
EG1-A04	EG1-A04-1	Caterpillar C15	500 kW	--	-	--	--
EG1-20	EG1-20-1	KOHLER GENSET 100ROZJ	100 kW	--	-	--	--
EG1-A44	EG1-A44-1	Caterpillar C18	600 kW	--	-	--	--
EG1-21	EG1-21-1	KOHLER GENSET 20ROZJ81	20 kW	--	-	--	--
EG1-22	EG1-22-1	ONAN GENSET 50DGCA	50 kW	--	-	--	--

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EG1-A34	EG1-A34-1	KOHLER 100REOZJK	100 kW	--	-	--	--
EG1-30	EG1-30-1	ONAN GENSET 125DGEA	125 kW	--	-	--	--
EG1-223	EG1-223-1	Caterpillar D150-8	200 kW	--	-	--	--
EG1-A35	EG1-A35-1	CATERPILLAR	350 kW	--	-	--	--
EG1-35	EG1-35-1	CATERPILLAR GENSET 3306	250 kW	--	-	--	--
EG1-A41	EG1-A41-1	CATERPILLAR C-18 ACERT	600 kW	--	-	--	--
EG1-152	EG1-152-1	KOHLER GENSET 30REOZJ	30 kW	--	-	--	--
EG1-A36	EG1-A36-1	KOHLER	350 kW	--	-	--	--
EG1-A06	EG1-A06-1	KOHLER GENSET 80REOZJ	80 kW	--	-	--	--

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EG1-49	EG1-49-1	CATERPILLAR GENSET SR4B	400 kW	--	-	--	--
EG1-A40	EG1-A40-1	CATERPILLAR C4.4	40 kW	--	-	--	--
EG1-242	EG1-242-1	KOHLER GENSET 30REOZJB	30 kW	--	-	--	--
EG1-61	EG1-61-1	KOHLER GENSET 450ROZD71	450 kW	--	-	--	--
EG1-A07	EG1-A07-1	ONAN GENSET DNAF 5708892	30 kW	--	-	--	--
EG1-A08	EG1-A08-1	KOHLER GENSET 30REOZB	30 kW	--	-	--	--
EG1-A37	EG1-A37-1	CATERPILLAR	350 kW	--	-	--	--
EG1-A09	EG1-A09-1	KOHLER GENSET 230REOZJB	230 kW	--	-	--	--
EG1-227	EG1-227-1	CATERPILLAR ENGINE C15	350 kW	--	-	--	--

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EG1-A10	EG1-A10-1	ONAN GENSET	350 kW	--	-	--	--
EG1-A11	EG1-A11-1	ONAN GENSET	750 kW	--	--	--	--
EG1-231	EG1-231-1	Caterpillar Engine D80-6	80 kW	--	-	--	--
EG1-A12	EG1-A12-1	ONAN GENSET DQDAA-5788716	250 kW	--	-	--	--
EG1-98	EG1-98-1	ONAN GENSET 100DGB-L30471A	100 kW	--	-	--	--
EG1-A43	EG1-A43-1	GENERAC GENSET SD060	60 kW	--	-	--	--
EG1-100	EG1-100-1	KOHLER 50ZJ GENERATOR	50 kW	--	-	--	--
EG1-A13	EG1-A13-1	ONAN GENSET 125DGDK	125 kW	--	-	--	--
EG1-222	EG1-222-1	KOHLER POWER 250REOZJD	250 kW	--	-	--	--

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EG1-102	EG1-102-1	OLYMPIAN GENSET D200P4	200 kW	--	-	--	--
EG1-EG1		<i>In Design</i>	300 kW	--	-	--	--
EG1-108	EG1-108-1	KOHLER GENSET 250A0ZD71	250 kW	--	-	--	--
EG1-A45	EG1-A45-1	CATERPILLAR C4.4	40 kW	--	-	--	--
EG1-228	EG1-228-1	CUMMINS GENERATOR DSHAC	200 kW	--	-	--	--
EG1-A15	EG1-A15-1	KOHLER GENSET 30RE0ZJ	30 kW	--	-	--	--
EG1-A16	EG1-A16-1	OLYMPIAN GENSET D30P3	30 kW	--	-	--	--
EG1-A38	EG1-A38-1	Caterpillar	250 kW	--	-	--	--
EG1-128	EG1-128-1	KOHLER GENSET 20R0ZJ71	20 kW	--	-	--	--

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EG1-131	EG1-131-1	GENERAC GENSET 96A-01251-S	125 kW	--	-	--	--
EG1-A39	EG1-A39-1	KOHLER GENSET 250REOZJE	255 kW	--	-	--	--
EG1-136	EG1-136-1	KOHLER GENSET 60ROZJ81	60 kW	--	-	--	--
EG1-A17	EG1-A17-1	KOHLER GENSET 30RE0ZJ	30 kW	--	-	--	--
EG1-143	EG1-143-1	KOHLER GENSET 125ROZJ81	125 kW	--	-	--	--
EG1-144	EG1-144-1	ONAN GENSET 35DGBB	35 kW	--	-	--	--
EG1-A18	EG1-A18-1	ONAN GENSET 25DL6L278320	25 kW	--	-	--	--
EG2: LPG-fired Units							
EG2-12	EG2-12-1	KOHLER GENSET 33RZ282	33 kW	--	-	--	--

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EG3: Natural Gas-fired Units							
EG3-18	EG3-18-1	ONAN GENSET 15JCL	15 kW	--	-	--	--
EG3-25	EG3-25-1	ONAN GENSET 15JCL	15 kW	--	-	--	--
EG3-34	EG3-34-1	ONAN GENSET 15JCL	15 kW	--	-	--	--
EG3-39	EG3-39-1	KOHLER GENSET 10RZ82	10 kW	--	-	--	--
EG3-66	EG3-66-1	ONAN GENSET 45EML	45 kW	--	-	--	--
EG3-46	EG3-46-1	KOHLER GENSET 10RZ82	10 kW	--	-	--	--
EG3-A42	EG3-A42-1	BLUESTAR 283PSL1706	25 kW	--	-	--	--
EG3-58	EG3-58-1	ONAN GENSET 10RZ82	10 kW	--	-	--	--

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EG3-113	EG3-113-1	KOHLER 20RZ	20 kW	--	-	--	--
EG3-137	EG3-137-1	KOHLER GENSET 10RZ82	10 kW	--	-	--	--
EG3-140	EG3-140-1	KOHLER GENSET 10RZ82	10 kW	--	-	--	--

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

Central Power Plants

1. **Limitations (B1 and B2)** – Emissions from the boilers B1 and B2 shall be controlled by low NO_x burners with flue gas recirculation (FGR) and a NO_x performance of 30 ppmvd at three percent O₂ for natural gas. The low NO_x burners shall be installed and operated in accordance with manufacturer's specifications.
(9 VAC 5-80-110 and Condition 1 of 3/29/18 Permit)
2. **Limitations (B3, B4, and B5)** – Oxides of nitrogen (NO_x) emissions from the three boilers B3, B4, and B5 shall be controlled by FGR with low-NO_x burners and good combustion practice.
(9 VAC 5-80-110 and Condition 2 of 3/29/18 Permit)
3. **Limitations (B1, B2, and B5)** – The approved fuels for the boilers B1, B2, and B5 are natural gas, distillate oil, B-5 biodiesel, and B-20 biodiesel. A change in the fuels shall be considered a change in the method of operation of the boilers B1, B2, and B5 and may require a new or amended permit. However, if a change in the fuel is not subject to new source review permitting requirements, this condition should not be construed to prohibit such a change.
(9 VAC 5-80-110 and Condition 3 of 3/29/18 Permit)
4. **Limitations (B3 and B4)** – The approved fuels for the two boilers B3 and B4 are natural gas and distillate oil. A change in the fuels shall be considered a change in the method of operation of the boilers B3 and B4 and may require a new or amended permit. However, if a change in the fuel is not subject to new source review permitting requirements, this condition should not be construed to prohibit such a change.
(9 VAC 5-80-110 and Condition 4 of 3/29/18 Permit)
5. **Limitations (B1, B2, B3, B4, and B5)** – The total combined throughput for the boilers B1, B2, B3, B4, and B5 shall be no more than the following:

Approved Fuel Type	Quantity Allowed
Distillate Oil	2,196,000 gallons (combined)
B-5 Biodiesel	
B-20 Biodiesel	
Natural Gas	1,343 x 10 ⁶ cubic feet

The fuel throughput for each fuel shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 5 of the 3/29/18 Permit)

6. **Limitations** – The distillate oil, B-5 biodiesel, and B-20 biodiesel shall meet the specifications below:

DISTILLATE OIL (for B1, B2, B3, B4, and B5) which meets the ASTM D396 specifications for numbers 1 or 2 (S15) fuel oil:

Maximum sulfur content per shipment: 0.0015%

B-5 BIODIESEL (for B1, B2, and B5) which meets the ASTM D975 specifications for Grades 1 or 2 (S15) fuel oil:

Maximum sulfur content per shipment: 0.0015%

B-20 BIODIESEL (for B1, B2, and B5) which meets the ASTM D7467 specifications for Grades 1 or 2 (S15) fuel oil:

Maximum sulfur content per shipment: 0.0015%

(9 VAC 5-80-110, Condition 6 of the 3/29/18 Permit, and 40 CFR 63.7515(h))

7. **Limitations (B1 and B2)** – Hourly emissions from the operation of each of the boilers B1 and B2 shall not exceed the limits specified below:

Particulate Matter (filterable)	1.3 lbs/hr
PM-10	1.6 lbs/hr
PM-2.5	1.4 lbs/hr
Sulfur Dioxide	0.1 lbs/hr
Nitrogen Oxides (as NO ₂)	13.4 lbs/hr
Carbon Monoxide	8.0 lbs/hr
Volatile Organic Compounds	0.5 lbs/hr

Compliance with these emission limits may be determined as stated in Conditions 1, 3, 6, and 12.

(9 VAC 5-80-110, and Condition 8 of the 3/29/18 Permit)

8. **Limitations (B3 and B4)** – Emissions from the operation of each of the boilers B3 and B4 shall not exceed the limits specified below:

Particulate Matter (filterable)	0.6 lbs/hr
PM-10	0.7 lbs/hr

PM-2.5	0.7 lbs/hr
Sulfur Dioxide	0.1 lbs/hr
Nitrogen Oxides (as NO ₂)	6.3 lbs/hr
Carbon Monoxide	3.6 lbs/hr
Volatile Organic Compounds	0.2 lbs/hr

Compliance with the hourly emission limits may be determined as stated in Conditions 2, 4, 6, and 12.
(9 VAC 5-80-110 and Condition 9 of the 3/29/18 Permit)

9. **Limitations (B5)** – Emissions from the operation of the boiler B5 shall not exceed the limits specified below:

Particulate Matter (filterable)	0.7 lbs/hr
PM-10	0.9 lbs/hr
PM-2.5	0.8 lbs/hr
Sulfur Dioxide	0.1 lbs/hr
Nitrogen Oxide (as NO ₂)	7.2 lbs/hr
Carbon Monoxide	4.1 lbs/hr
Volatile Organic Compounds	0.3 lbs/hr

Compliance with these emission limits may be determined as stated in Conditions 2, 3, 6, and 12.
(9 VAC 5-80-110, and Condition 10 of the 3/29/18 Permit)

10. **Limitations (B1, B2, B3, B4, and B5)** – Total emissions from the operation of the five boilers (B1, B2, B3, B4, and B5) shall not exceed the limits specified below:

Particulate Matter (filterable)	3.5 tons/yr
PM-10	7.7 tons/yr
PM -2.5	7.4 tons/yr
Sulfur Dioxide	0.6 tons/yr

Nitrogen Oxide (as NO ₂)	45.9 tons/yr
Carbon Monoxide	61.9 tons/yr
Volatile Organic Compounds	4.1 tons /yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 1, 2, 3, 4, 5, 6, and 12.
(9 VAC 5-80-110, and Condition 11 of the 3/29/18 Permit)

11. **Limitations (B1, B2, B3, B4, and B5)** – Visible emissions from the boilers B1, B2, B3, B4, and B5 shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by 40 CFR 60, Appendix A, Method 9. This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-110, 9 VAC 5-50-410, and Condition 12 of the 3/29/18 Permit)

12. **Limitations** – At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided, including the names of trainees, the date of training and the nature of the training.

(9 VAC 5-80-110, 9 VAC 5-50-20 E and Condition 21 of the 3/29/18 Permit)

13. **Monitoring and Recordkeeping** – The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil, B-5 biodiesel, and/or B-20 biodiesel. Each fuel

supplier certification shall include the following:

- a. The name of the fuel supplier;
- b. The date on which the distillate oil, B-5 biodiesel, and/or B-20 biodiesel was received;
- c. The quantity of distillate oil, B-5 biodiesel, and/or B-20 biodiesel delivered in the shipment;
- d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications ASTM D396 for Grades 1 or 2 (S15) fuel oil;
- e. A statement that the B-5 biodiesel complies with the American Society for Testing and Materials specifications ASTM D975 for Grades 1 or 2 (S15) fuel oil;
- f. A statement that the B-20 biodiesel complies with the American Society for Testing and Materials specifications ASTM D7467 for Grades 1 or 2 (S15) fuel oil;
- g. The sulfur content of the distillate oil;
- h. The sulfur content of the B-5 biodiesel, and;
- i. The sulfur content of the B-20 biodiesel.

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 6. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.

(9 VAC 5-80-110 and Condition 7 of the 3/29/18 Permit)

14. Monitoring and Recordkeeping – The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

- a. Daily throughput of natural gas (in 10^6 cubic feet), distillate oil (in 10^3 gallons), B-5 biodiesel (in 10^3 gallons) and B-20 biodiesel (in 10^3 gallons) to each of the boilers B1, B2, B3, B4, and B5.
- b. As an alternative to maintaining the daily fuel throughput requirement of Condition 14.a for boilers B1, B2, B3, B4, and B5, the owner or operator may elect to record and maintain records of the amount of fuel delivered to each boiler B1, B2, B3, B4, and B5 during each calendar month.
- c. Monthly and annual throughput of natural gas (in 10^6 cubic feet), distillate oil (in 10^3 gallons), B-5 biodiesel (in 10^3 gallons), and B-20 biodiesel (in 10^3 gallons) for each of the boilers B1, B2, B3, B4, and B5. Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.

- d. The DEQ-approved, annual pollutant-specific emission factors and the equations used to demonstrate compliance with Condition 10.
- e. Copies of semi-annual fuel quality reports submitted in accordance with Condition 19.
- f. All fuel supplier certifications.
- g. Records of all visible emissions evaluations and performance (stack) tests.
- h. Records of bypass, malfunction, shutdown, or failure of the facility or its associated air pollution control equipment as required by Condition 67.
- i. Records of maintenance, operating procedures, and training as required by Condition 12.
- j. Site-specific monitoring plan as required in Condition 18.

These records shall be available on-site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110; 9 VAC 5-50-50; 9 VAC 5-50-410; 40 CFR 60.48c(g); and Condition 17 of the 3/29/18 Permit)

15. **Testing** – The fuel burning equipment shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested in the breaching for each of the boilers B1, B2, B3, B4, and B5 past the boiler exit and prior to the entrance to the stack. A common breaching port is acceptable so long as only one unit is operating during the time of testing.
(9 VAC 5-80-110 and 9 VAC 5-50-30 F)

16. **Testing** – Upon request by the DEQ, the permittee shall conduct additional visible emission evaluations and/or performance (stack) tests on the boilers B1, B2, B3, B4 and B5 to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the DEQ.
(9 VAC 5-80-110, 9 VAC 5-30-30 G and Condition 15 of the 3/29/18 Permit)

17. **Testing** – No less frequent than once each five-year period, the permittee shall conduct a performance (stack) test on boiler B1 or B2 for NO_x emissions while using natural gas and the appropriate EPA Reference Method. Within two years of the issuance date of this permit, the permittee shall conduct a performance test on boiler B1 or B2. Subsequent five-year periods shall alternate performance tests between boilers B1 and B2.

Tests shall be conducted to determine compliance with the applicable emissions controls contained in Condition 1 and the applicable emission limits contained in Condition 7. The details of the test are to be arranged with the DEQ. The permittee shall submit a test protocol at least 30 days prior to testing. Samples taken as required by this permit shall be analyzed in accordance with 1 VAC 30-45, Certification for Noncommercial Environmental Laboratories, or 1 VAC 30-46, Accreditation for Commercial Environmental Laboratories. One copy of the test results shall be submitted to the DEQ within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-110)

18. **Testing** – As required by 40 CFR Part 60, Subpart Dc, section 60.47c(f)(3), the permittee shall operate the boilers B1, B2, B3, B4, and B5 in accordance with a site-specific monitoring plan approved by the DEQ. The monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the boilers B1, B2, B3, B4, and B5 indicative of compliance with the opacity standard. For testing performed as part of this site-specific monitoring plan, the DEQ may require an alternative to the notification and reporting requirements specified in §§60.8 and 60.11 that the permittee submit any deviations with the excess emissions report required under §60.48c(c).
(9 VAC 5-80-110 and 40 CFR 60.47c(f)(3))
19. **Reporting** – The permittee shall submit reports to the DEQ within 30 days after the end of each semi-annual period. Each semi-annual report shall include the dates included in the semi-annual period and the following:
- a. Regarding fuel sulfur content, if no shipments of distillate oil were received during the semi-annual period, the semi-annual report shall include a statement that no distillate oil was received during the semi-annual period. If distillate oil was received during the semi-annual period, the report shall include:
 - i The name of the oil supplier;
 - ii Dates included in the semi-annual period;
 - iii A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 60.41c of 40 CFR 60, Subpart Dc;
 - iv The sulfur content or maximum sulfur content of the oil, indicating compliance with the fuel oil sulfur content as listed in Condition 6;
 - v A certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certification submitted represent all of the fuel combusted during the reporting period.

One copy of the semi-annual report shall be submitted to the U.S. Environmental Protection Agency at the address specified below:

Chief, Air Section
Enforcement & Compliance Assurance Division
Air, RCRA and Toxics Branch
US EPA Region 3
1650 Arch Street – 3ED21
Philadelphia, PA 19103

(9 VAC 5-80-110, 9 VAC 5-50-50, 40 CFR 60.48c(f)(1) and Condition 16 of the 3/29/18 Permit)

Emergency Generators (EG1, EG2, and EG3)

The emergency generators are classified into the following listed groupings: “NSPS Group A, NSPS Group B, MACT Group 1, MACT Group 2, MACT Group 3, MACT Group 4, MACT Group 5, MACT Group 6, and MACT Group 7”, which are delineated in Attachment A of the permit.

20. **Limitations** – Generators in the NSPS Group A are limited to use of diesel fuel with a maximum sulfur content not to exceed 15 parts per million (ppm) per gallon.
 (9 VAC 5-80-110, 40 CFR 60.4207(b), and 40 CFR 80.510 (b))

21. **Limitations** – Emissions from the operation of the specified emergency generators (NSPS Group A and NSPS Group B) shall not exceed the limits specified below:

Nos.	NSPS Emission Group No.	New Source Performance Standards (g/kW-hr)		
		NMHC + NO _x	CO	PM
EG1-A02, EG1-A34, EG1-231	1	4.0	5.0	0.30
EG1-2A, EG1-A33, EG1-223, EG1-A35, EG1-A36, EG1-A37, EG1-A12, EG1-222, EG1-EG1, EG1-228, EG1-A38, EG1-227, EG1-A39	2	4.0	3.5	0.20
EG1-241, EG1-A04, EG1-A41, EG1-A44	3	6.4	3.5	0.20
EG1-A40, EG1-A43, EG1-A45	4	4.7	5.0	0.40
Nos.	NSPS Emission Group No.	New Source Performance Standards (g/hp-hr)		
		NO _x	CO	VOC
EG3-A42	5	10	387	N/A

Compliance with these emission limits may be determined by keeping records of engine manufacture data indicating compliance with these emission limits. 40 CFR 60.4202 requires the manufacturer to certify the engine.

(9 VAC 5-80-110, 40 CFR 60.4205(b), 40 CFR 60.4202(a), 40 CFR 60.4211(c), 40 CFR 60.4233(d), and Table 1 to Subpart JJJJ of 40 CFR 60)

22. **Limitations** – Exhaust opacity from the operation of the specified emergency generators (NSPS Group A) must not exceed:

- a. 20 percent during the acceleration mode;
- b. 15 percent during the lugging mode; and

- c. 50 percent during the peaks in either the acceleration or lugging modes.

The specified emergency generators (NSPS Group A) must be certified in accordance with 40 CFR 60.4202.

(9 VAC 5-80-110, 40 CFR 60.4205(b), and 40 CFR 60.4202(a).

- 23. **Limitations** – Visible emissions from all emergency generators listed in Attachment A shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by 40 CFR 60, Appendix A, Method 9. This condition applies at all times except during startup, shutdown, and malfunction.

(9 VAC 5-80-110 and 9 VAC 5-50-80)

- 24. **Limitations** – The operation of the emergency generators (NSPS Group A, NSPS Group B, MACT Group 4, MACT Group 6, and MACT Group 7) is limited to emergency situations. Emergency generators (NSPS Group A, NSPS Group B, MACT Group 4, MACT Group 6, and MACT Group 7) may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine.

Maintenance checks and readiness testing is limited to 100 hours per year. For engines meeting standards under Condition 21, any operation other than emergency operation, and maintenance and testing as permitted in 40 CFR 60 Subpart IIII (NSPS Group A, MACT Group 4, and MACT Group 6) or 40 CFR 60 Subpart JJJJ (NSPS Group B and MACT Group 7), is prohibited.

(9 VAC 5-80-110, 40 CFR 63.6590 (c), 40 CFR 60.4211(f), 40 CFR 60.4219, and 40 CFR 60.4243(d))

- 25. **Limitation** – The emergency stationary reciprocating internal combustion engines (RICE), MACT Group 2 and MACT Group 5, must be operated in accordance with the following:

- a. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this condition, is prohibited.
- b. You may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per calendar year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
- c. You may operate the emergency stationary RICE up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing. The 50 hours per calendar year for non-

emergency situations cannot be used for peak shaving, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(9 VAC 5-80-110 and 40 CFR 63.6640(f))

26. **Limitations** - The compression ignition (CI) engines (MACT Group 2) shall comply with the maintenance requirements specified in section 1 (a) through (c) of Table 2c to Subpart ZZZZ:

- a. Change oil and filter every 500 hours of operation or annually, whichever comes first, or at an extended frequency if utilizing an oil analysis program as described in §63.6625(i);
- b. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and
- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

(9 VAC 5-80-110, 40 CFR 63.6602, and Table 2c to 40 CFR 63 Subpart ZZZZ)

27. **Limitations** – The spark ignition (SI) engines (MACT Group 5) shall comply with the maintenance requirements specified in section 6 (a) through (c) of Table 2c to Subpart ZZZZ:

- a. Change oil and filter every 500 hours of operation or annually, whichever comes first, or at an extended frequency if utilizing an oil analysis program as described in §63.6625(i);
- b. Inspect spark plugs every 1000 hours of operation or annually, whichever comes first; and
- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

(9 VAC 5-80-110, 40 CFR 63.6602, and Table 2c to 40 CFR 63 Subpart ZZZZ)

28. **Limitations** – For CI engines and SI engines, during periods of startup the permittee must minimize the time spent at idle for the emergency engines (MACT Group 2 and MACT Group 5, respectively), and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

(9 VAC 5-80-110, 40 CFR 63.6602, and Table 2c to 40 CFR 63 Subpart ZZZZ)

29. **Limitations** – The emergency generators (MACT Group 4, MACT Group 6, and MACT Group 7) must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII for compression ignition engines (MACT Group 4 and MACT Group 6) or by meeting the requirements of 40 CFR 60 Subpart JJJJ for spark ignition engines (MACT Group 7).

(9 VAC 5-80-110 and 40 CFR 63.6590(c))

30. **Limitations** – The permittee must maintain and operate the emergency generators (NSPS Group A and NSPS Group B) according to the manufacturer’s written instructions or procedures developed by the permittee that are approved by the manufacturer, over the entire life of the engine. In addition, the permittee may only change those settings that are approved by the manufacturer.
(9 VAC 5-80-110, 40 CFR 63.6590(c), 40 CFR 60.4206, 40 CFR 60.4211, 40 CFR 60.4234, and 40 CFR 60.4243)
31. **Limitations** – Except where this permit is more restrictive, the emergency generators (NSPS Group A, NSPS Group B, MACT Group 4, MACT Group 6, and MACT Group 7) shall be operated in compliance with the requirements of 40 CFR 60 Subpart IIII (NSPS Group A, MACT Group 4, and MACT Group 6) or 40 CFR Subpart JJJJ (NSPS Group B and MACT Group 7).
(9 VAC 5-80-110, 40 CFR 63.6590(c), 40 CFR 60 Subpart IIII, and 40 CFR Subpart JJJJ)
32. **Limitations** – Except where this permit is more restrictive, the emergency generators (MACT Group 2 and MACT Group 5) shall be operated in compliance with the requirements of 40 CFR 63 Subpart ZZZZ.
(9 VAC 5-80-110 and 40 CFR 63 Subpart ZZZZ)
33. **Monitoring and Recordkeeping** – The permittee must install a non-resettable hour meter prior to the startup of the emergency generators (NSPS Group A and NSPS Group B). The hour meter shall be provided with adequate access for inspection.
(9 VAC 5-80-110, 40 CFR 63.6590 (c), 40 CFR 60.4209, and 40 CFR 60.4237)
34. **Monitoring and Recordkeeping** – For CI engines and SI engines, the permittee shall install non-resettable hour meters on the existing emergency stationary RICE (MACT Groups 2 (existing CI) and 5 (existing SI)). The hour meter shall be provided with adequate access for inspection
(9 VAC 5-80-110 and 40 CFR 63.6625 (f))
35. **Monitoring and Recordkeeping** – For CI engines and SI engines, the permittee shall develop a maintenance plan for the emergency generators (MACT Groups 2 (existing CI) and 5 (existing SI)) that provides to the extent practicable for the maintenance and operation of each engine in a manner consistent with good air pollution control practice for minimizing emissions.
(9 VAC 5-80-110 and 40 CFR 63.6625 (e))
36. **Monitoring and Recordkeeping** – The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:
- a. All fuel supplier certifications.
 - b. Annual hours of emergency operation, maintenance and testing, and operation in non-emergency situations for the generators (MACT Group 2 and MACT Group 5).

- c. Annual hours of operation of the emergency generators (MACT Group 4, MACT Group 6, MACT Group 7, NSPS Group A, and NSPS Group B) for emergency purposes, maintenance checks and readiness testing.
- d. Records of engine manufacture data as required in Condition 21.
- e. Records of the maintenance conducted on the CI engines (MACT Group 2) and SI engines (MACT Group 5) in order to demonstrate that each engine is operated and maintained according to the maintenance plan required by Condition 35.
- f. Records of the hours of operation of the CI engines (MACT Group 2) and SI engines (MACT Group 5) that are recorded on a non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation, and maintenance and testing.
- g. Records of the hours of operation of the emergency generators (NSPS Group A and NSPS Group B) that are recorded on a non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for maintenance checks and readiness testing.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110, 40 CFR 60.4214, 40 CFR 60.4245, and 40 CFR 63.6655 (e) and (f))

37. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with the procedures approved by the DEQ.

(9 VAC 5-80-110)

Boiler MACT Requirements (NESHAP for Industrial/Commercial/Institutional Boilers and Process Heaters - 40 CFR 63 Subpart DDDDD) - Boilers B1 and B2

38. **Limitations: Subpart DDDDD** – Except where this permit is more restrictive, the boilers B1 and B2 shall be operated in compliance with the requirements of 40 CFR 63 Subpart DDDDD.
(9 VAC 5-80-110)

39. **Limitations:** Emissions shall not exceed the limits specified below:

Emission Unit	Pollutant	Heat Input-based limits
		(lb/MMBtu)
Each of the following units when firing distillate oil or biodiesel (B5 and B20):	CO	130 ppmvd @ 3% O ₂
	TSM	2.9E-05
	HCl	4.4E-04
Boiler B1 Boiler B2	Hg	4.8E-07

The limits apply to you at all times either of the boilers B1 or B2 is operating except for the periods noted in Conditions 41 and 42. Compliance with the emission limits is demonstrated as described in Condition 43.

(9 VAC 5-80-110, 40 CFR 63.7500(a)(1), 40 CFR 63.7500(f), 40 CFR 63.7505(a), and Table 1 of 40 CFR 63 Subpart DDDDD)

40. **Operating Limits** – At all times, you must operate and maintain the boilers B1 and B2, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to DEQ that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
(9 VAC 5-80-110 and 40 CFR 63.7500(a)(3))

41. **Work Practice Standards: Startup** – For the boilers B1 and B2, the following work practice standards apply during startup of each unit:

- You must operate all continuous monitoring systems (CMS) during startup;
- For startup of a boiler, you must use one or a combination of the following clean fuels: Natural gas, synthetic natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, liquefied petroleum gas, clean dry biomass, and any fuels meeting the appropriate HCl, mercury and total selected metals (TSM) emission standards by fuel analysis.
- For “startup” in §63.7575, you must use the following as a work practice standard: once you start firing fuels that are not clean fuels, you must vent emissions to the main stack(s) and engage all of the applicable control devices except limestone injection in fluidized

bed combustion (FBC) boilers, dry scrubber, fabric filter, and selective catalytic reduction (SCR). You must start your limestone injection in FBC boilers, dry scrubber, fabric filter, and SCR systems as expeditiously as possible. Startup ends when steam or heat is supplied for any purpose.

- d. You must comply with all applicable emission limits at all times except during startup and shutdown periods at which time you must meet this work practice. You must collect monitoring data during periods of startup, as specified in §63.7535(b). You must keep records during periods of startup. You must provide reports concerning activities and periods of startup, as specified in §63.7555.

(9 VAC 5-80-110, 40 CFR 63.7500(f) and Item 5 of Table 3 of 40 CFR 63 Subpart DDDDD)

42. Work Practice Standards: Shutdown – For Boilers B1 and B2, the following work practice standards apply during shutdown of each unit:

- a. You must operate all CMS during shutdown.
- b. While firing fuels that are not clean fuels during shutdown, you must vent emissions to the main stack(s) and operate all applicable control devices, except limestone injection in FBC boilers, dry scrubber, fabric filter, and SCR but, in any case, when necessary to comply with other standards applicable to the source that require operation of the control device.
- c. If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the following clean fuels: Natural gas, synthetic natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, refinery gas, and liquefied petroleum gas.
- d. You must comply with all applicable emissions limits at all times except for startup or shutdown periods conforming with this work practice. You must collect monitoring data during periods of shutdown, as specified in §63.7535(b). You must keep records during periods of shutdown. You must provide reports concerning activities and periods of shutdown, as specified in 40 CFR 63.7555.

(9 VAC 5-80-110, 40 CFR 63.7500(f), and Item 6 of Table 3 of 40 CFR 63 Subpart DDDDD)

43. Compliance – For each boiler B1 and B2, the permittee shall demonstrate continuous compliance with each emission limit in Conditions 39 and 40, the work practice standards in Conditions 41 and 42, the operating limits in Table 4 to 40 CFR 63 Subpart DDDDD according to the methods specified in Table 8, the methods specified in Condition 44, and the recordkeeping specified in Condition 50.

(9 VAC5-80-110 and 40 CFR 63.7540)

44. Tune-Up: Annual – For Boilers B1 and B2, you must conduct a performance tune-up annually, as specified below. The first annual tune-up must be conducted no more than 13 months after the initial startup and each subsequent annual tune-up must be conducted no more than 13 months after the previous tune-up. If the unit is not operating on the required

date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. You must conduct the tune-up using the type of fuel that provided the majority of heat input to the boiler over the 12 months prior to the tune-up.

- a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
- b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
- c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;
- d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;
- e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and
- f. Maintain on-site and submit, if requested by DEQ, a report containing the information in paragraphs (i) through (iii) below:
 - i The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
 - ii A description of any corrective actions taken as a part of the tune-up; and
 - iii The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

(9 VAC 5-80-110, 40 CFR 63.7500(a)(1), 40 CFR 63.7515(d), 40 CFR 63.7540(a)(10) and (13), and Table 3 of 40 CFR 63 Subpart DDDDD)

45. **Monitoring** – For Boilers B1 and B2, you must install, operate, and maintain an oxygen analyzer system, which determines the oxygen content of a gas stream and is used to monitor oxygen in the boiler. This is inclusive of an oxygen trim system that is used to maintain

excess air at the desired level in a combustion device over its operating load range.
(9 VAC 5-80-110, 40 CFR 63.7525(a), 40 CFR 63.7535 (b) (c) and (d), and 40 CFR 63.7575)

46. **Monitoring** - You do not need to conduct further performance tests (stack tests or fuel analyses), providing that you combust ultra-low sulfur liquid fuel (distillate oil that has less than or equal to 15 ppm sulfur) in Boilers B1 and B2, and as long as you demonstrate ongoing compliance with the emissions limits in Conditions 39 and 40 by monitoring and recording the type of fuel combusted on a quarterly basis. If you intend to use a fuel other than ultra-low sulfur liquid fuel, natural gas, refinery gas, or other gas 1 fuel as defined in 40 CFR 63.7575, you must conduct new performance tests within 60 days of burning the new fuel type.
(9 VAC 5-80-110 and 40 CFR 63.7515(e) and (h))

47. **Reports** - You must submit each report in Table 9 to 40 CFR 63 Subpart DDDDD that applies to you. Boilers B1 and B2 are subject to semi-annual compliance reporting.

- a. Each semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- b. Each semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(9 VAC 5-80-110 and 40 CFR 63.7550(a) and (b))

48. **Reports (Tune-up Compliance Reports)** – For Boilers B1 and B2, a tune-up compliance report must contain the following information:

- a. Company and Facility name and address.
- b. Process unit information, emissions limitations, and operating parameter limitations.
- c. Date of report and beginning and ending dates of the reporting period.
- d. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to Condition 44. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown.
- e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(9 VAC 9-80-110 and 40 CFR 63.7550(c))

49. **Reports** - You must submit the reports for Boilers B1 and B2 according to the procedures specified in paragraph (a) below.

- a. Within 60 days after the date of completing each performance test required by 40 CFR 63, Subpart DDDDD, to include fuel analyses, you must submit the results following the procedure in paragraph (b) below. The report must also verify that the operating limits for each boiler have not changed or provide documentation of revised operating limits established according to §63.7530 and Table 7 to 40 CFR 63 Subpart DDDDD, as applicable. The reports for all subsequent performance tests must include all applicable information required in §63.7550.
- b. You must submit all reports required by Table 9 of this subpart electronically to the EPA via the Compliance and Emissions Data Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX). You must use the appropriate electronic report in CEDRI for 40 CFR 63 Subpart DDDDD. Instead of using the electronic report in CEDRI for Subpart DDDDD, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to 40 CFR 63 Subpart DDDDD is not available in CEDRI at the time that the report is due, you must submit the report to EPA at the appropriate address listed in 40 CFR 63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.

(9 VAC 5-80-110, 40 CFR 63.7515(f), and 40 CFR 63.7550(h))

50. Records – The permittee shall maintain records of emissions data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. You must keep the following records:

- a. A copy of each notification and report that you submitted to comply with 40 CFR 63 Subpart DDDDD, including documents supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted according to the requirements in §63.10(b)(2)(xiv).
- b. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations required in §63.10(b)(2)(xiv).
- c. For boilers B1 and B2, records required in Table 8 to 40 CFR 63 Subpart DDDDD including records of all monitoring data and calculated averages for applicable operating limits, such as operating load, to show continuous compliance with each emission limit and operating limit that applies to you. The records shall include, but not be limited to:
 - i 30-day rolling average operating load; and
 - ii 12-month rolling averages.
- d. For boilers B1 and B2, you must keep the following records:
 - i Records of monthly fuel use by each boiler, including the type(s) of fuel and amount(s) used.
 - ii Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.

- iii Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.7500(a)(3), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.
- iv A copy of all calculations and supporting documentation of maximum TSM fuel input using Equation 9 of §63.7530, that were done to demonstrate continuous compliance with the TSM emission limit if you elect to demonstrate compliance through performance testing. To demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 18 of §63.7530 that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rate, for each boiler.
- v You must maintain records of the calendar date, time, occurrence, and duration of each startup and shutdown.
- vi You must maintain records of the type(s) and amounts(s) of fuels used during each startup and shutdown.
- vii Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.

(9 VAC 5-80-110, 40 CFR 63.7555, 40 CFR 63.7560, and Table 8 to 40 CFR63 Subpart DDDDD)

Boiler MACT Requirements (NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources - 40 CFR 63 Subpart JJJJJJ) – Boilers B3, B4, and B5

51. Work Practice Standards - For each boiler (B3, B4, and B5), the permittee shall comply with the following work practice standards, emission reduction measures, and management practices:

- a. Conduct an initial performance tune-up of each boiler (B3, B4, and B5) as specified in 40 CFR 63.11214.
- b. Conduct a biennial tune-up of each boiler as specified in 40 CFR 63.11223 (B3, B4, and B5).
- c. Conduct a one-time energy assessment performed by a qualified energy assessor.

These standards apply at all times that each affected boiler is operating, except during periods of startup and shutdown as defined in 40 CFR 63.11237, during which time you must only comply with Table 2 to 40 CFR 63 Subpart JJJJJJ.

(VAC 5-80-110, 40 CFR 63.11201, and Items 4 and 16 of Table 2 to 40 CFR 63, Subpart JJJJJJ)

52. Limitations – For each boiler (B3, B4, and B5), the permittee shall comply with the applicable requirements of the General Provisions of 40 CFR 63 Subpart A, as outlined in Table 8 to 40 CFR 63 Subpart JJJJJJ.

(9 VAC 5-80-110 and 40 CFR 63.11235)

53. General Compliance – For each boiler (B3, B4, and B5), the permittee shall comply with the applicable general compliance requirements in 40 CFR 63.11205. At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the DEQ that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(9 VAC 5-80-110 and 40 CFR 63.11205)

54. Compliance – For each boiler (B3, B4, and B5), the permittee shall comply with the applicable continuous compliance requirements in 40 CFR 63.11223, as follows:

- a. You must conduct a performance tune-up according to paragraph (b) of this Condition and keep records as required 40 CFR 63.11225(c) to demonstrate continuous compliance. The permittee shall conduct the tune-up while burning the type of fuel that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.

- b. For each boiler (B3, B4, and B5), the permittee shall conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in paragraphs (b)(i) through (vii) of this Condition. Each biennial tune-up shall be conducted no more than 25 months after the previous tune-up.
- i As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection.). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection.
 - ii Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
 - iii Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;
 - iv Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;
 - v Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and
 - vi Maintain on-site and submit, if requested by the DEQ, a report containing the information in paragraphs (a) through (c) below:
 - (a) The concentration of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent measured at high fire or typical operating load, before and after the tune-up of the boiler.
 - (b) A description of any corrective actions taken as a part of the tune-up of the boiler.
 - (c) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
- c. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.

55. Work Practice Standards – The permittee must complete the following for Boilers B3, B4, and B5:

- a. The permittee must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008 that meets or is amended to meet the energy assessment requirements below satisfies the energy assessment requirement. Energy assessor approval and qualification requirements are waived in instances where past or amended energy assessments are used to meet the energy assessment requirements. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least 1 year between January 1, 2008, and the compliance date specified in §63.11196 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items (i) to (iv) appropriate for the on-site technical hours listed in §63.11237.
 - i A visual inspection of the boiler system;
 - ii An evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints;
 - iii An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator;
 - iv A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage;
 - v A list of energy conservation measures that are within the facility's control;
 - vi A list of the energy savings potential of the energy conservation measures identified;
 - vii A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments; and
 - viii The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.
- b. The permittee must submit a signed certification in the Notification of Compliance Status Report that an energy assessment of each boiler (B3, B4, and B5) and each boiler's energy use system was completed according to (i) through (ix) above and that each assessment is an accurate depiction of your facility at the time of the assessment or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended.

(9 VAC 5-80-110, 40 CFR 63.11201(b), 40 CFR 63.11214(c), and Item 16 of Table 2 in 40 CFR 63 Subpart JJJJJ)

56. Reporting – For each boiler (B3, B4, and B5), the permittee must submit the notifications specified in (a) through (e) below to the DEQ:

- a. The permittee must submit all of the notifications in §§63.7(b), 63.8(e) and (f), and 63.9(b) through (e), (g), and (h) that apply to the permittee by the dates specified in those sections except as specified in (a)(2) and (4);
- b. An initial notification must be submitted no later than January 20, 2014 or within 120 days after the source becomes subject to the standards.
- c. You must submit the Notification of Compliance Status no later than 120 days after the applicable compliance date specified in §63.11196. The notification of Compliance must include the information and certification(s) of compliance in (i) through (iv), as applicable, and signed by a responsible official.
 - i You must submit the information required in §63.9(h)(2), except the information listed in §63.9(h)(2)(i)(B) and (F).
 - ii “This facility complies with the requirements in §63.11214 to conduct an initial tune-up of the boiler.”
 - iii “This facility has had an energy assessment performed according to §63.11214(c).”
 - iv For units that do not qualify for a statutory exemption as provided in Section 129(g)(1) of the Clean Air Act, “No secondary materials that are solid waste were combusted in any affected unit.”
- d. If the permittee is using data from a previously conducted emission test to serve as documentation of conformance with the emission standards and operating limits of this subpart, you must include in the Notification of Compliance Status the date of the test and a summary of the results, not a complete test report, relative to this Subpart.
- e. The permittee shall prepare, by March 1 of each year, and submit to the DEQ upon request, an annual compliance certification report for the previous calendar year containing the information specified in (i) through (ii) below:
 - i Company name and address.
 - ii Statement by a responsible official with the official’s name, title, phone number the email address, and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with the relevant standards and other requirements of this subpart., Your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:
 - (a) “This facility complies with the requirements in §63.11223 to conduct a biennial tune-up”, as applicable, of each boiler.
 - (b) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act, “No secondary materials that are solid waste were combusted in any affected unit.”

- (c) “This facility complies with the requirement in §§63.11214(D) and 63.11223(g) to minimize the boilers’ time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer’s recommended procedures or procedures specified for a boiler of similar design if manufacturer’s recommended procedures are not available.”
- (d) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviation occurred, and the corrective action taken.
- f. The permittee must submit a signed statement in the Notification of Compliance Status report that you conducted an initial tune-up of the boiler.
- g. Notification, reporting, and compliance requirements for the MACT DDDDD submitted for Boiler B5 are acceptable for compliance with the notification, reporting, and compliance requirements of the MACT JJJJJ.

(9 VAC 5-80-110, 40 CFR 63.11214(b) and 40 CFR 63.11225(a) and (b)).

57. Recordkeeping –The permittee shall maintain the records specified in (a) through (d) of this Condition for each boiler (B3, B4, and B5):

- a. As required in §63.10(b)(2)(xiv), the permittee must keep a copy of each notification and that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted.
- b. The permittee shall keep records to document conformance with the work practices, emission reduction measures, and management practices required by §63.11214 and §63.11223 as specified in (i) through (iii) below:
 - i Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer’s specifications to which the boiler was tuned.
 - ii A copy of the energy assessment report.
 - iii Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.
- c. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.
- d. The permittee shall keep the records of all inspection and monitoring data required by §63.11221 and §63.11222, and the information identified in (i) through (vi) below:
 - i The date, place, and time of the monitoring event.

- ii Person conducting the monitoring.
- iii Technique or method used.
- iv Operating conditions during the activity.
- v Results including the date, time, and duration, of the period from the time the monitoring indicated a problem to the time that monitoring indicated proper operation.
- vi Maintenance or corrective action taken (if applicable).

The records must be in a form suitable and readily available for expeditious review. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and 40 CFR 63.11225)

Insignificant Emission Units

58. The following emission units at the facility are identified as insignificant emission units under 9 VAC 5-80-720:

Petroleum Storage Tanks

Emission Unit Number	Capacity in gallons	Tank Construction	Use	Fuel Stored	Citation	Pollutant Emitted (9 VAC 5-80-720 B)
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Free-Standing Aboveground Storage Tanks

B3_B4_T6	12,000	Steel	Fuel Storage: Boilers B3 and B4	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A18	50	Steel	Emerg. Power	Diesel (0.0015%)	9 VAC 5-80-720 B	VOC
A10	500	Steel	Emerg. Power	Diesel (0.0015%)	9 VAC 5-80-720 B	VOC
A11	1,000	Steel	Emerg. Power	Diesel (0.0015%)	9 VAC 5-80-720 B	VOC
91-97	500	Steel	Heating	#2 Distillate (0.05%)	9 VAC 5-80-720 B	VOC

Underground Storage Tanks

124	1000	Steel	Heating	#2 Distillate	9 VAC 5-80-720 B	VOC
B1_B2_B5_T1	50,000	Steel	Fuel Storage: Boilers B1, B2, and B5	#2 Distillate, B-5 Biodiesel, or B-20 Biodiesel (0.0015%)	9 VAC 5-80-720 B	VOC
B1_B2_B5_T2	50,000	Steel	Fuel Storage: Boilers B1, B2, and B5	#2 Distillate, B-5 Biodiesel, or B-20 Biodiesel (0.0015%)	9 VAC 5-80-720 B	VOC
MG1	10,000	Steel	Vehicle Fueling	Gasoline	9 VAC 5-80-720 B	VOC
MG2	2,000	Steel	Vehicle Fueling	Diesel	9 VAC 5-80-720 B	VOC

Above Ground Belly Tanks or Tanks Located Within Generators

241	500	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
61	550	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
1	100	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
11	100	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
19	150	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
20	350	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
21	100	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC

Emission Unit Number	Capacity in gallons	Tank Construction	Use	Fuel Stored	Citation	Pollutant Emitted (9 VAC 5-80-720 B)
22	100	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
30	100	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
35	500	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
49	150	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
98	75	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
102	250	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
228	200	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
128	120	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
131	250	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
108	325	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
136	200	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
143	250	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
144	50	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
100	150	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
152	100	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A08	50	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A16	112	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A01	250	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
151	200	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A03	300	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A04	660	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
223	278	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A06	85	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
242	119	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A17	140	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
227	595	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A09	500	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A07	65	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A13	475	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC

Emission Unit Number	Capacity in gallons	Tank Construction	Use	Fuel Stored	Citation	Pollutant Emitted (9 VAC 5-80-720 B)
222	356	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A02	278	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A15	140	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A12	720	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
231	208	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
2A	354	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A33	1,020	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A34	209	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A35	1,039	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A36	774	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A37	660	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A38	400	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A11	150	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A39	472	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A40	140	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A41	1900	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A43	350	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A44	1041	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC
A45	140	Steel	Emerg. power	#2 Distillate (0.0015%)	9 VAC 5-80-720 B	VOC

Fuel Combustion Units

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
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FB1: Distillate Oil-Fired Units

FB1-91	Warm Air 0.76 GPM, #2 Fuel Oil, boiler/hot water heater	9 VAC 5-80-720 C	--	0.10 MMBtu/hr
FB1-92	Warm Air 0.76 GPM, #2 fuel oil, boiler/hot water heater	9 VAC 5-80-720 C	--	0.10 MMBtu/hr
FB1-93	Armstrong 0.85 GPM #2 Fuel Oil boiler/hot water heater	9 VAC 5-80-720 C	--	0.11 MMBtu/hr
FB1-94	Armstrong 0.85 GPM #2 Fuel Oil, boiler/hot water heater	9 VAC 5-80-720 C	--	0.11 MMBtu/hr
FB1-96	Warm Air 1.12 GPM, #2 Fuel Oil, boiler/hot water heater	9 VAC 5-80-720 C	--	0.15 MMBtu/hr
FB1-97	Warm Air 0.76 GPM, #2 Fuel Oil, boiler/hot water heater	9 VAC 5-80-720 C	--	0.10 MMBtu/hr
FB1-124	Whirlpool 1.12 GPM #2 Fuel Oil, boiler/hot water heater	9 VAC 5-80-720 C	--	0.15 MMBtu/hr

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
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FB2: LPG-Fired Units

FB2-89	Payne PG9MAA, LPG boiler/hot water heater	9 VAC 5-80-720 B	NOx, PM	0.10 MMBtu/hr
FB2-90	Payne PG9MAA, LPG boiler/hot water heater	9 VAC 5-80-720 B	NOx, PM	0.10 MMBtu/hr
FB2-123	Omega Radiant Heater, LPG boiler/ hot water heater	9 VAC 5-80-720 B	NOx, PM	0.35 MMBtu/hr
FB2-A123	Omega Radiant Heater, LPG boiler/ hot water heater	9 VAC 5-80-720 B	NOx, PM	0.35 MMBtu/hr
FB2-125	Dayton LPG boiler/hot water heater	9 VAC 5-80-720 B	NOx, PM	0.12 MMBtu/hr

FB3: Natural Gas-Fired Units

FB3-264	Hurst, Natural gas boiler/ hot water heater	9 VAC 5-80-720 C		2.10 MMBtu/hr
FB3-265	Hurst, Natural gas boiler/ hot water heater	9 VAC 5-80-720 C		2.10 MMBtu/hr
FB3-6	Burnham 4FW-92-40LB Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	0.90 MMBtu/hr
FB3-7	Burnham 4FW-92-40LB Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	0.90 MMBtu/hr

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
FB3-8	Patterson-Kelley Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	1.50 MMBtu/hr
FB3-149	Patterson-Kelley, Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	1.0 MMBtu/hr
FB3-150	Patterson-Kelley, Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	1.0 MMBtu/hr
FB3-16	Patterson-Kelley N-1900 Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	1.9 MMBtu/hr
FB3-17	Cleaver-Brooks CB200-60 Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	2.50 MMBtu/hr
FB3-224	Patterson-Kelley Boiler/hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-225	Patterson-Kelley Boiler/hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-226	Patterson-Kelley Boiler/hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-232	Patterson-Kelley Boiler/hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-233	Precision hot water heater	9 VAC 5-80-720 C	--	1.54 MMBtu/hr
FB3-234	Precision hot water heater	9 VAC 5-80-720 C	--	1.54 MMBtu/hr
FB3-235	(18) Natural gas-fired pieces of Various kitchen equipment	9 VAC 5-80-720 B	NOx, PM	<0.25 MMBtu/hr each
FB3-23	Patterson-Kelley N-1900 boiler / hot water heater	9 VAC 5-80-720 C	--	1.90 MMBtu/hr
FB3-24	Patterson-Kelley N-1900 boiler / hot water heater	9 VAC 5-80-720 C	--	1.90 MMBtu/hr
FB3-261	Kiln	9 VAC 5-80-720 B	NOx, PM	0.36 MMBtu/hr
FB3-262	Kiln	9 VAC 5-80-720 B	NOx, PM	0.34 MMBtu/hr
FB3-28	Patterson Kelley N-2000 boiler / hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-29	Patterson Kelley N-2000 boiler / hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-30	Patterson Kelley N-2000 boiler / hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-31	(6) Modine 160,000 BTU boiler/ hot water heaters	9 VAC 5-80-720 C	--	0.16 MMBtu/hr each
FB3-32	Patterson-Kelley N-1900 boiler/ hot water heater	9 VAC 5-80-720 C	--	1.90 MMBtu/hr
FB3-33	Patterson-Kelley N-1900 boiler/ hot water heater	9 VAC 5-80-720 C	--	1.90 MMBtu/hr

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
FB3-36	(10) Hastings GF-1505 Natural gas boiler/ hot water heaters	9 VAC 5-80-720 C	--	0.16 MMBtu/hr each
FB3-37	Patterson-Kelley N-1900 boiler/ hot water heater	9 VAC 5-80-720 C	--	1.90 MMBtu/hr
FB3-38	Cleaver Brooks CB200-60 boiler/ hot water heater	9 VAC 5-80-720 C	--	2.51 MMBtu/hr
FB3-256	Endura FDR-1500 Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	1.50 MMBtu/hr
FB3-257	Endura FDR-1500 Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	1.50 MMBtu/hr
FB3-258	Endura FDR-1500 Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	1.50 MMBtu/hr
FB3-259	PK Thermific SN-700 Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	0.70 MMBtu/hr
FB3-260	PK Thermific SN-700 Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	0.70 MMBtu/hr
FB3-44	Cleaver-Brooks CB200-60 boiler/ hot water heater	9 VAC 5-80-720 C	--	2.50 MMBtu/hr
FB3-45	Patterson-Kelley N-1900 boiler/ hot water heater	9 VAC 5-80-720 C	--	1.90 MMBtu/hr
FB3-50	WELL-McLain PFG-6-PIN boiler/hot water heater	9 VAC 5-80-720 C	--	0.30 MMBtu/hr
FB3-254	Patterson-Kelley N1500-2 boiler/ hot water heater	9 VAC 5-80-720 C	--	1.50 MMBtu/hr
FB3-255	Patterson-Kelley N1500-2 boiler/ hot water heater	9 VAC 5-80-720 C	--	1.50 MMBtu/hr
FB32-56	Patterson-Kelley N1900 boiler/ hot water heater	9 VAC 5-80-720 C	--	1.90 MMBtu/hr
FB3-236	Patterson-Kelley N2000 boiler/ hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-248	Patterson Kelley N-2000-MFD boiler/ hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-249	Patterson Kelley N-2000-MFD boiler/ hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-62	PK Thermific N2000 MFD boiler/ hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-63	PK Thermific N2000 MFD boiler/ hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-64	Burnham 4FW12750LB boiler/hot water heater	9 VAC 5-80-720 C	--	1.06 MMBtu/hr
FB3-65	Burnham 4FW12750LB boiler/hot water heater	9 VAC 5-80-720 C	--	1.06 MMBtu/hr
FB3-243	Patterson-Kelley N-1500 boiler/ hot water heater	9 VAC 5-80-720 C	--	1.50 MMBtu/hr
FB3-A31	Patterson-Kelley N-1500 Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	1.50 MMBtu/hr

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
FB3-A32	Patterson-Kelley N-1500 Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	1.50 MMBtu/hr
FB3-69	Burnham 4FW-127-40LB boiler/ hot water heater	9 VAC 5-80-720 C	--	1.33 MMBtu/hr
FB3-70	Burnham 4FW-127-40LB boiler/hot water heater	9 VAC 5-80-720 C	--	1.33 MMBtu/hr
FB3-71	Patterson-Kelly N-1900 boiler/hot water heater	9 VAC 5-80-720 C	--	1.90 MMBtu/hr
FB3-261	Patterson Kelly 2500-MFD Natural gas boiler/hot water heater	9 VAC 5-80-720 C	--	2.50 MMBtu/hr
FB3-262	Patterson Kelly 2500-MFD Natural gas boiler/hot water heater	9 VAC 5-80-720 C	--	2.50 MMBtu/hr
FB3-263	Patterson Kelly 2500-MFD Natural gas boiler/hot water heater	9 VAC 5-80-720 C	--	2.50 MMBtu/hr
FB3-244	Patterson-Kelley N2000-MFD boiler/hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-245	Patterson-Kelley N2000-MFD boiler/hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-A23	Patterson-Kelley N1500-MFD boiler/ hot water heater	9 VAC 5-80-720 C	--	1.50 MMBtu/hr
FB3-A24	Patterson-Kelley 531-5 boiler/ hot water heater	9 VAC 5-80-720 C	--	0.65 MMBtu/hr
FB3-219	Patterson-Kelley N2000-MFD boiler/ hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-220	Patterson-Kelley N2000-MFD boiler/ hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-221	Patterson-Kelley N2000-MFD boiler/ hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-229	AO Smith Model BTF-80 boiler/ hot water heater	9 VAC 5-80-720 C	--	0.08 MMBtu/hr
FB3-230	AO Smith Model BTF-80 boiler/ hot water heater	9 VAC 5-80-720 C	--	0.08 MMBtu/hr
FB3-114	Patterson-Kelley N-2000 boiler/ hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-115	Patterson-Kelley N-2000 boiler/ hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-239	Lochinvar Knight KBN-285 boiler/ hot water heater	9 VAC 5-80-720 C	--	0.20 MMBtu/hr
FB3-240	Lochinvar Knight KBN-285 boiler/ hot water heater	9 VAC 5-80-720 C	--	0.20 MMBtu/hr
FB3-132	Bryan Boiler AB-150-W-FDGO boiler/ hot water heater	9 VAC 5-80-720 C	--	1.20 MMBtu/hr

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
FB3-133	Bryan Boiler AB-150-W-FDGO boiler/ hot water heater	9 VAC 5-80-720 C	--	1.20 MMBtu/hr
FB3-252	A.O. Smith Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	0.20 MMBtu/hr
FB3-253	A.O. Smith Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	0.20 MMBtu/hr
FB3-A33	Fulton EDR-1000 Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	1.00 MMBtu/hr
FB3-A34	AO Smith 540 Indoor Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	0.20 MMBtu/hr
FB3-A35	AO Smith 540 Indoor Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	0.20 MMBtu/hr
FB3-246	Patterson Kelly N2000-MFD boiler / hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-247	Patterson Kelly N2000-MFD boiler / hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-250	Patterson Kelly N2000-2 boiler / hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-251	Patterson Kelly N2000-2 boiler / hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr
FB3-146	Cleaver-Brooks CBH-200-80 Natural gas boiler/ hot water heater	9 VAC 5-80-720 C	--	3.30 MMBtu/hr
FB3-147	Patterson-Kelly N-1900 boiler/ hot water heater	9 VAC 5-80-720 C	--	1.90 MMBtu/hr
FB3-A28	Patterson-Kelly N2000-2 boiler/ hot water heater	9 VAC 5-80-720 C	--	2.03 MMBtu/hr
FB3-A29	Patterson-Kelley SC-2000 boiler/ hot water heater	9 VAC 5-80-720 C	--	2.00 MMBtu/hr

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Permit Shield & Inapplicable Requirements

59. Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
None Identified	-	-

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.

(9 VAC 5-80-140)

General Conditions

60. Federal Enforceability – All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110)

61. Permit Expiration –

- a. This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
- b. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
- c. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
- d. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
- e. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
- f. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application

(9 VAC 5-80-80, 9 VAC 5-80-110 and 9 VAC 5-80-170 B)

62. Recordkeeping and Reporting – All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

- a. The date, place as defined in the permit, and time of sampling or measurements.
- b. The date(s) analyses were performed.
- c. The company or entity that performed the analyses.
- d. The analytical techniques or methods used.
- e. The results of such analyses.
- f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110)

63. **Recordkeeping and Reporting** – Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110)

64. **Recordkeeping and Reporting** – The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:
 - i. Exceedance of emissions limitations or operational restrictions;
 - ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,
 - iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
 - iv. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”

(9 VAC 5-80-110)

65. **Annual Compliance Certification** – Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later

than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9VAC5-80-430 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31.
- b. The identification of each term or condition of the permit that is the basis of the certification.
- c. The compliance status.
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
- e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
- f. Such other facts as the permit may require to determine the compliance status of the source.
- g. One copy of the annual compliance certification shall be sent to EPA at the following address:

R3_APD_Permits@epa.gov

(9 VAC 5-80-110)

66. Permit Deviation Reporting – The permittee shall notify the DEQ, within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition 64 of this permit.
(9 VAC 5-80-110 F.2)

67. Failure/Malfunction Reporting – In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the DEQ of such failure or malfunction and shall within 14 days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. When the condition

causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the DEQ.
(9 VAC 5-80-110 and 9 VAC 5-20-180)

68. **Failure/Malfunction Reporting** – The emission units that have continuous monitors subject to 9VAC5-40-50 C and 9VAC5-50-50 C are not subject to the 14 day written notification.
(9 VAC 5-20-180)

69. **Failure/Malfunction Reporting** – Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9VAC5-40-41 or 9VAC5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9VAC5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the board semiannually. All reports shall include the following information:

- a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9VAC5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;
- b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
- c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
- d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

All malfunctions of emission units not subject to 9VAC5-40-50 C and 9VAC5-50-50 C require written reports within 14 days of the discovery of the malfunction
(9 VAC 5-80-110 and 9 VAC 5-20-180 C)

70. **Severability** – The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110)

71. **Duty to Comply** – The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110)

72. **Need to Halt or Reduce Activity not a Defense** – It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110)
73. **Permit Modification** – A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-110, 9 VAC 5-80-190 and 9 VAC 5-80-260)
74. **Property Rights** – The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110)
75. **Duty to Submit Information** – The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110)
76. **Duty to Submit Information** – Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110)
77. **Duty to Pay Permit Fees** – The owner of any source for which a permit under 9VAC5-80-50 through 9VAC5-80-300 was issued shall pay permit fees consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350 in addition to an annual permit maintenance fee consistent with the requirements of 9VAC5-80-2310 through 9VAC5-80-2350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by DEQ. The amount of the annual permit maintenance fee shall be the largest applicable base permit maintenance fee amount from Table 8-11A in 9VAC5-80-2340, adjusted annually by the change in the Consumer Price Index.
(9 VAC 5-80-110, 9 VAC 5-80-340, and 9 VAC 5-80-2340)
78. **Fugitive Dust Emission Standards** – During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
- b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
- c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;
- d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
- e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-80-110 and 9 VAC 5-50-90)

79. **Startup, Shutdown, and Malfunction** – At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-80-110 and 9 VAC 5-50-20 E)

80. **Alternative Operating Scenarios** – Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110)

81. **Inspection and Entry Requirements** – The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110)

82. Reopening For Cause – The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

- a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110)

83. Permit Availability – Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-110 and 9 VAC 5-80-150)

84. Transfer of Permits

- a. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)
- b. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
- c. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board

of the change in source name within 30 days of the name change and shall comply with the requirements of 9VAC5-80-200.

(9 VAC 5-80-110 and 9 VAC 5-80-160)

85. **Permit Revocation or Termination for Cause** – A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-110, 9 VAC 5-80-190 C, and 9 VAC 5-80-260)

86. **Duty to Supplement or Correct Application** – Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-110 and 9 VAC 5-80-80 E)

87. **Stratospheric Ozone Protection** – If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(9 VAC 5-80-110 and 40 CFR Part 82)

88. **Asbestos Requirements** – The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-110)

89. **Accidental Release Prevention** – If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(9 VAC 5-80-110 and 40 CFR Part 68)

90. **Changes to Permits for Emissions Trading** – No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110)

91. **Emissions Trading** – Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

- a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
- b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
- c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110)

SOURCE TESTING REPORT FORMAT

Report Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Test Dates.
4. Tester; name, address and report date

Certification

1. Signed by team leader/certified observer (include certification date)
2. Signed by responsible company official
3. *Signed by reviewer

Copy of approved test protocol

Summary

1. Reason for testing
2. Test dates
3. Identification of unit tested & the maximum rated capacity
4. *For each emission unit, a table showing:
 - a. Operating rate
 - b. Test Methods
 - c. Pollutants tested
 - d. Test results for each run and the run average
 - e. Pollutant standard or limit
5. Summarized process and control equipment data for each run and the average, as required by the test protocol
6. A statement that test was conducted in accordance with the test protocol or identification & discussion of deviations, including the likely impact on results
7. Any other important information

Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Sampling port location and dimensioned cross section Attached protocol includes: sketch of stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions

Test Results

1. Detailed test results for each run
2. *Sample calculations
3. *Description of collected samples, to include audits when applicable

Appendix

1. *Raw production data
2. *Raw field data
3. *Laboratory reports
4. *Chain of custody records for lab samples
5. *Calibration procedures and results
6. Project participants and titles
7. Observers' names (industry and agency)
8. Related correspondence
9. Standard procedures

* Not applicable to visible emission evaluations

MACT (ZZZZ) Group 1 [§63.6590(a)(1)(i)]:

Existing Emergency Generators > 500 HP at Major Source of Hazardous Air Pollutants (HAP)

Ref. No.	Location	Manufacturer and/or Description	Date Installed (prior to 12/19/02)	Generator Size (kW)	Engine Size (HP)
EG1-A11	JMU Memorial Hall	ONAN GENSET	10/01/99	750	1135
EG1-49	Health Sciences A2	CATERPILLAR GENSET SR4B	12/99	400	587
EG1-61	ISAT (CISAT A-1)	KOHLER GENSET 450ROZD71	6/97	450	603
EG1-A10	Memorial Hall	ONAN GENSET	10/99	350	535

Requirements:

<i>Existing >500 HP @ Major HAP – Must have commenced construction before 12/19/02</i> No initial notification is necessary.	§63.6590 (b)(3)(iii) – Does <u>not</u> have to meet the requirements of this subpart (ZZZZ) or subpart A.
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MACT (ZZZZ) Group 2 [§63.6590(a)(1)(ii)], page 1 of 2:

Existing Emergency Generators ≤ 500 HP at Major Source of HAP

Ref. No.	Location	Manufacturer and/or Description	Date Installed (prior to 6/12/06)	Generator Size (kW)	Engine Size (HP)
EG1-1	Ashby Hall	Kohler GENSET 20ROZJ	7/00	20	27
EG1-A01	Athletic Center (APC)	GENERAC GENSET 3420810100	6/04	50	67
EG1-151	Bookstore	KOHLER GENSET 40REOZJB	3/93	40	54
EG1-11	Carrier Library #2	ONAN GENSET 125DGEA	8/91	125	207
EG1-19	Chesapeake Hall	OLYMPIAN GENSET D200P4	10/00	200	325
EG1-A03	CISAT A3	KOHLER GENSET 275RE0ZJ	01/04	275	369
EG1-20	College Center	KOHLER GENSET 100ROZJ	08/01	100	134
EG1-21	Converse Hall	KOHLER GENSET 20ROZJ81	07/98	20	27
EG1-22	Convocation Center	ONAN GENSET 50DGCA	02/93	50	86
EG1-30	Eagle Hall	ONAN GENSET 125DGEA	07/92	125	207
EG1-35	Frye Hall	CATERPILLAR GENSET 3306	11/00	250	382
EG1-152	Gifford Hall	KOHLER GENSET 30REOZJ	06/02	30	40
EG1-A06	Harrison Hall	KOHLER GENSET 80REOZJ	04/05	80	107
EG1-242	Hoffman Hall	KOHLER GENSET 30REOZJB	12/03	30	40
EG1-A07	JMAC3 (TELECOM)	ONAN GENSET DNAF 5708892	03/05	30	40
EG1-A08	Logan Hall	KOHLER GENSET 30REOZB	02/95	30	40
EG1-A09	Massanutten Hall	KOHLER GENSET 230REOZJB	12/05	230	308
EG1-108	Recreation Center	KOHLER GENSET 250A0ZD71	07/96	250	335

Requirements:

Subject to MACT ZZZZ: Existing ≤500 HP @ Major HAP – Must have commenced construction before 6/12/06	MACT ZZZZ Requirements: §63.6602 – Emission limits in Table 2c §63.6640(f)(1) through (4) – Restrictions on emergency use
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MACT (ZZZZ) Group 2 [§63.6590(a)(1)(ii)], page 2 of 2:

Existing Emergency Generators ≤ 500 HP at Major Source of HAP

Ref. No.	Location	Manufacturer and/or Description	Date Installed (prior to 6/12/06)	Generator Size (kW)	Engine Size (HP)
EG1-98	Music Bldg	ONAN GENSET 100DGB-L30471A	03/87	100	166
EG1-100	Parking Deck (Champions Drive)	KOHLER 50ZJ GENERATOR	06/01	50	67
EG1-A13	Parking Deck Warsaw	ONAN GENSET 125DGDK	03/06	125	207
EG1-102	Potomac Hall	Olympian GENSET D200P4	10/00	200	325
EG1-A15	Spotswood Hall	KOHLER GENSET 30RE0ZJ	8/04	30	40
EG1-A16	Stream Plant (TELECOM)	OLYMPIAN GENSET D30P3	4/04	30	40
EG1-128	Taylor Hall	KOHLER GENSET 20R0ZJ71	2/93	20	27
EG1-131	University Services Bldg	GENERAC GENSET 96A-01251-S	3/96	125	168
EG1-136	Wampler Hall	KOHLER GENSET 60ROZJ81	12/93	60	80
EG1-A17	Wayland Hall	KOHLER GENSET 30RE0ZJ	1/05	30	40
EG1-143	Wilson Hall #1	KOHLER GENSET 125ROZJ81	10/91	125	168
EG1-144	Wilson Hall #2	ONAN GENSET 35DGBB	9/98	35	68
EG1-A18	WMRA	ONAN GENSET 25DL6L278320	10/88	25	34

Requirements:

Subject to MACT ZZZZ: Existing ≤ 500 HP @ Major HAP – Must have commenced construction before 6/12/06	MACT ZZZZ Requirements: §63.6602 – Emission limits in Table 2c §63.6640(f)(1) through (4) – Restrictions on emergency use
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MACT (ZZZZ) Group 3 [§63.6590(a)(2)(i)]:

New (after 12/19/02) Emergency Generators > 500 HP at Major Source of HAP

Ref. No.	Location	Manufacturer and/or Description	Date Installed (on or after 12/19/02)	Generator Size (kW)	Engine Size (HP)
EG1-A04	JMU CISAT Library	Caterpillar C15	2/1/07	500	779
EG1-241	JMU Bridgeforth Stadium	Cummins Generator DFEG	4/2010	350	755
EG1-227	JMU Massanutten Hall	Caterpillar Engine C15	4/30/2010	350	717
EG1-A33	JMU CISAT A3B	Caterpillar	07/2011	550	625
EG1-A36	JMU Grace St. Apartments	KOHLER	08/2014	350	538

Requirements:

Subject to MACT ZZZZ: <i>New >500 HP @ Major HAP – Commenced construction on or after 12/19/02</i>	MACT ZZZZ Requirements: §63.6590 (b)(1)(i) – Does <u>not</u> have to meet the requirements of this subpart or subpart A, <u>except</u> for the initial notification requirements of §63.6645(f)
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MACT Group 4 [§63.6590(a)(2)(ii)]:

New Emergency Generators ≤ 500 HP at Major Source of HAP

Ref. No.	Location	Manufacturer and/or Description	Date Installed (on or after 6/12/06)	Generator Size (kW)	Engine Size (HP)
EG1-A02	Burruss Hall	Caterpillar 291-0361	5/1/2007	125	168
EG1-223	JMU East Campus Dining Hall	Caterpillar D150-8	6/24/2009	200	268
EG1-231	Memorial Stadium	Caterpillar Engine D80-6	5/7/2009	80	107
EG1-A12	Miller Hall	ONAN GENSET DQDAA-5788716	4/2007	250	390
EG1-222	Performing Arts Center	Kohler Power 250REOZJD	4/30/2009	250	335
EG1-228	Shenandoah Hall	Cummins Generator DSHAC	4/30/2009	200	364
EG1-2A	Anthony-Seeger	Caterpillar	June 2014	200	230
EG1-A34	JMU Duke Hall	KOHLER 100REOZJK	10/2013	100	158
EG1-A38	JMU Student Success Center	Caterpillar	10/2013	250	398

Requirements:

Subject to MACT ZZZZ: <i>New ≤500 HP @ Major Source of HAP – Commenced construction on or after 6/12/06</i>	MACT ZZZZ Requirements: §63.6590 (c)(6) – Must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII for compression ignition engines. No further requirements apply for such engines under this part.
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MACT Group 5 [§63.6590(a)(1)(ii)]:

Existing Spark-ignition (SI) Emergency Generators \leq 500 HP at Major Source of HAP

Ref. No.	Location	Manufacturer and/or Description	Date Installed (prior to 6/12/06)	Generator Size (kW)	Engine Size (HP)
EG2-12	Carrier Library #1	KOHLER GENSET 33RZ282	8/91	33	44
EG3-18	Chappelear Hall	ONAN GENSET 15JCL	8/93	15	20
EG3-25	Dingldine Hall	ONAN GENSET 15JCL	8/93	15	20
EG3-34	Frederickson Hall	ONAN GENSET 15JCL	8/93	15	20
EG3-39	Garber Hall	KOHLER GENSET 10RZ82	8/93	10	13
EG3-66	Greek Row	ONAN GENSET 45EML	12/91	45	60
EG3-46	Hanson Hall	KOHLER GENSET 10RZ82	8/93	10	13
EG3-58	Ikenberry Hall	ONAN GENSET 10RZ82	8/93	10	13
EG3-113	Shorts Hall	KOHLER 20RZ	8/93	20	27
EG3-137	Weaver Hall	KOHLER GENSET 10RZ82	8/93	10	13
EG3-140	White Hall	KOHLER GENSET 10RZ82	8/93	10	13

Requirements:

Subject to MACT ZZZZ: Existing \leq 500 HP @ Major Source of HAP – Must have commenced construction before 6/12/06	MACT Requirements: §63.6602 – Emission limits in Table 2c §63.6640(f)(1) through (4) – Restrictions on emergency use
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MACT Group 6 [§63.6590(a)(2)(iii)]:

New Compression Ignition (CI) Emergency Generators at Area Source of HAP

Ref. No.	Location	Manufacturer and/or Description	Date Installed (on or after 6/12/06 ⁽¹⁾)	Generator Size (kW)	Engine Size (HP)
EG1-A35	JMU East Tower	Caterpillar	12/2015	350	546
EG1-A37	JMU Madison Hall (Cancer Center)	Caterpillar	12/2015	350	546
EG1-EG1	Central Power Plant	<i>Awaiting Construction</i>		300	
EG1-A39	JMU USB Annex	KOHLER GENSET 250REOZJE	8/2017	255	385
EG1-A40	JMU Hillside Residence Hall	CATERPILLAR C4.4	4/2018	40	54
EG1-A41	JMU Gibbons Hall	CATERPILLAR C-18 ACERT	4/2018	600	805
EG1-A43	JMU Parking Deck Chesapeake Ave.	GENERAC GENSET SD060	8/2018	60	93
EG1-A44	JMU College of Business	Caterpillar C18	9/2018	600	900
EG1-A45	JMU Roop Hall	CATERPILLAR C4.4	9/2018	40	54

Requirements:

Subject to MACT ZZZZ: <i>New Emergency Generators @ Area Source of HAP – Must have commenced construction on or after 6/12/06⁽¹⁾</i>	MACT Requirements: §63.6590 (c)(1) – Must meet the requirements of this part by meeting the requirements of 40 CFR part 60 Subpart IIII for compression ignition engines. No further requirements apply for such engines under this part.
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- (1) JMU became an area source on April 8, 2015 due to the removal of the two MWCU from the former RRF (now Central Power Plant - East). All generators listed in this category (MACT Group 6) were installed on or after April 8, 2015.

MACT Group 7 [§63.6590(a)(2)(iii)]:

New Spark-ignition (SI) Emergency Generators at Area Source of HAP

Ref. No.	Location	Manufacturer and/or Description	Date Installed (on or after 6/12/06 ⁽¹⁾)	Generator Size (kW)	Engine Size (HP)
EG3-A42	Huffman Hall	BLUESTAR 283PSL1706	5/2018	25	34

Requirements:

Subject to MACT ZZZZ: <i>New Emergency Generators @ Area Source of HAP – Must have commenced construction on or after 6/12/06⁽¹⁾</i>	MACT Requirements: §63.6590 (c)(1) – Must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart JJJJ for spark ignition engines. No further requirements apply for such engines under this part.
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- (1) JMU became an area source on April 8, 2015 due to the removal of the two MWCU from the former RRF (now Central Power Plant - East). All generators listed in this category (MACT Group 7) were installed on or after April 8, 2015.

NSPS (Subpart III) Group A:

Emergency Generators constructed after 6/12/06 – Subject to NSPS, Subpart IIII

Ref. No.	Location	Manufacturer and/or Description	Date Installed (after 6/12/06)	Generator Size (kW)	Engine Size (HP)	Engine Model Year
EG1-241	JMU Bridgeforth Stadium	Cummins Generator DFEG	3/1/10	350	755	2009
EG1-A02	Burruss Hall	Caterpillar 291-0361	5/1/07	125	168	2007
EG1-A04	JMU CISAT Library	Caterpillar C15	2/1/07	500	779	2007
EG1-223	JMU East Campus Dining Hall	Caterpillar D150-8	6/24/09	200	268	2008
EG1-227	JMU Massanutten Hall	Caterpillar Engine C15	4/30/10	350	717	2009
EG1-231	Memorial Stadium	Caterpillar Engine D80-6	5/7/09	80	107	2009
EG1-A12	Miller Hall	ONAN GENSET DQDAA-788716	4/1/07	250	390	2007
EG1-222	Performing Arts Center	Kohler Power 250REOZJD	4/30/09	250	335	2008
EG1-228	Shenandoah Hall	Cummins Generator DSHAC	4/30/09	200	364	2008
EG1-EG1	Central Power Plant	<i>Awaiting Construction</i>		300	Not installed	
EG1-2A	JMU Anthony-Seeger	Caterpillar	06/2014	200	230	2014
EG1-A33	JMU CISAT A3B	Caterpillar	07/11	550	625	2011
EG1-A34	JMU Duke Hall	KOHLER 100REOZJK	10/2013	100	158	2013
EG1-A35	JMU East Tower	Caterpillar	12/2015	350	546	2015
EG1-A36	JMU Grace St. Apartments	KOHLER	08/2014	350	538	2014
EG1-A37	JMU Madison Hall	Caterpillar	12/2015	350	546	2015
EG1-A38	JMU Student Success Ctr.	Caterpillar	10/2013	250	398	2013
EG1-A39	JMU USB Annex	KOHLER GENSET 250REOZJE	8/2017	255	385	2016
EG1-A40	JMU Hillside Residence Hall	CATERPILLAR C4.4	4/2018	40	54	2018
EG1-A41	JMU Gibbons Hall	CATERPILLAR C-18 ACERT	4/2018	600	805	2016
EG1-A43	JMU Parking Deck Chesapeake Ave.	GENERAC GENSET SD060	8/2018	60	93	2018
EG1-A44	JMU College of Business	Caterpillar C18	9/2018	600	900	2018
EG1-A45	JMU Roop Hall	CATERPILLAR C4.4	9/2018	40	54	2018

NSPS (Subpart JJJJ) Group B:

Emergency Generators constructed after 6/12/06 – Subject to NSPS, Subpart JJJJ

Ref. No.	Location	Manufacturer and/or Description	Date Installed (after 6/12/06)	Engine Size (kW)	Engine Size (HP)	Engine Model Year
EG3-A42	Huffman Hall	BLUESTAR 283PSL1706	5/2018	25	34	2018